

Ohm's Law worksheet

Name _____ Per: _____

1. The rate of electron flow is measured in (a) amperes (b) volts (c) ohms.
2. Potential difference is measurement of _____ and is symbolized in the ohms law equation as the letter (V) and the unit symbol (V). The rate of electron flow is called current and is measured in amps (A). The symbol for the flow of electrons in an equation is (I). The _____ (R) is measured in ohms (Ω).
3. Voltage = _____ times _____.
4. According to Ohm's Law, what effect will decreasing the resistance have on the current?
5. In a circuit, voltage and current are (a) directly proportional, (b) inversely proportional, (c) not proportional.
6. Rearrange Ohm's Law to answer the following; Current equals _____ divided by _____.
7. If the power source is set at 6V and R is 2 ohms, the current = _____
8. $V=5\text{volts}$, $R= 10\text{ ohms}$, $I=$ _____.
9. If the voltage stays the same and the resistance is $\frac{1}{4}$ of its original, what will happen to the current?
10. If the current in the circuit is 7 amps and the resistance is 2 ohms the voltage = _____.
11. $R= 30\text{ ohms}$, $I= 3\text{A}$, $V=$ _____
12. Resistance = _____ divided by _____.
13. If the power source is 12 V and the flow of electrons is 3A, what is the resistance?
14. $V= 6\text{V}$, $I= 18\text{A}$, $R=$ _____

Extension Questions:

15. A _____ is the electric pressure required to produce one ampere of current in a circuit having one _____ of resistance.
16. One amp is one _____ per second. A coulomb is _____ electrons.

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